



Date: March 9, 2012
To: Work Assignment Manager, Jeff Catanzarita, EPA/ERTC
From: V. Kansal, Analytical Support Leader, SERAS *Vinod Kansal*
Subject: Preliminary Results of VOCs in Air Analysis using SERAS SOP# 1814
Project: Cabo Rojo, WA# 0-130

This document contains the analytical results and report for the following samples:

Chain(s) of Custody #: 0-130-3/1/12-(0009-0013)
Analyses: TO-15
No. of Samples: 34
Matrix: Air

This report contains the results of 34 samples received on 03/05/12 for analysis of VOCs in Air by EPA TO-15.

ec R. Singhvi, V.Kansal, D. Miller, D. Killeen, M. Cartwright, G. Depasquale

cc Analyst: Ben Beauchaine
Central File

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank	0-130-1057		
Sample Location	3/5/2012	Trip Blank		
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Propylene	U 0.120	U 0.120		
Dichlorodifluoromethane	U 0.345	U 0.345		
Chloromethane	U 0.144	U 0.144		
Dichlorotetrafluoroethane	U 0.488	U 0.488		
Vinyl Chloride	U 0.178	U 0.178		
1,3-Butadiene	U 0.154	U 0.154		
Bromomethane	U 0.271	U 0.271		
Chloroethane	U 0.184	U 0.184		
Acetone	U 0.552	0.864	0.552	
Trichlorofluoromethane	U 0.392	U 0.392		
Isopropyl Alcohol	U 2.860	U 2.860		
1,1-Dichloroethene	U 0.277	U 0.277		
Methylene Chloride	U 0.242	U 0.242		
Trichlorotrifluoroethane	U 0.535	U 0.535		
trans-1,2-Dichloroethene	U 0.277	U 0.277		
1,1-Dichloroethane	U 0.282	U 0.282		
MTBE	U 0.252	U 0.252		
Vinyl Acetate	U 0.246	U 0.246		
2-Butanone	U 0.206	U 0.206		
cis-1,2-Dichloroethene	U 0.277	U 0.277		
Ethyl Acetate	U 0.251	U 0.251		
Hexane	U 0.246	U 0.246		
Chloroform	U 0.341	U 0.341		
Tetrahydrofuran	U 0.206	U 0.206		
1,2-Dichloroethane	U 0.282	U 0.282		
1,1,1-Trichloroethane	U 0.381	U 0.381		
Benzene	U 0.223	U 0.223		
Carbon Tetrachloride	U 0.439	U 0.439		
Cyclohexane	U 0.240	U 0.240		
1,2-Dichloropropane	U 0.322	U 0.322		
1,4-Dioxane	U 0.251	U 0.251		
Trichloroethene	U 0.375	U 0.375		
Heptane	U 0.286	U 0.286		
cis-1,3-Dichloropropene	U 0.317	U 0.317		
Methyl Isobutyl Ketone	U 0.286	U 0.286		
trans-1,3-Dichloropropene	U 0.317	U 0.317		
1,1,2-Trichloroethane	U 0.381	U 0.381		
Toluene	U 0.263	U 0.263		
2-Hexanone	U 0.286	U 0.286		
Dibromochloromethane	U 0.594	U 0.594		
1,2-Dibromoethane	U 0.536	U 0.536		
Tetrachloroethene	U 0.473	U 0.473		
Chlorobenzene	U 0.321	U 0.321		
Ethylbenzene	U 0.303	U 0.303		
m&p-Xylene	U 0.303	U 0.303		
Bromoform	U 0.721	U 0.721		
Styrene	U 0.297	U 0.297		
1,1,2,2-Tetrachloroethane	U 0.479	U 0.479		
o-Xylene	U 0.303	U 0.303		
p-Ethyltoluene	U 0.343	U 0.343		
1,3,5-Trimethylbenzene	U 0.343	U 0.343		
1,2,4-Trimethylbenzene	U 0.343	U 0.343		
1,3-Dichlorobenzene	U 0.419	U 0.419		
1,4-Dichlorobenzene	U 0.419	U 0.419		
1,2-Dichlorobenzene	U 0.419	U 0.419		

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Vinyl Chloride	U	0.178	U	0.178	U	0.178	U	0.178
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277
1,1-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
cis-1,2-Dichloroethene	U	0.277	0.307	0.277	U	0.277	U	0.277
1,2-Dichloroethane	U	0.282	U	0.282	U	0.282	U	0.282
Trichloroethene	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	2.63	0.473	U	0.473	U	0.473	U	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046		0-130-1049		0-130-1050		0-130-1054		0-130-1055	
Sample Location	DEC-AMB1		DEC-IA3		CRPDC-IA1		CRPDC-IA2		CRPDC-AMB1	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277								
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282	3.78	0.282	2.48	0.282	U	0.282	U	0.282
Trichloroethene	U	0.375								
Tetrachloroethene	U	0.473	U	0.473	6.77	0.473	4.85	0.473	7.99	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1001		0-130-1002		0-130-1006		0-130-1007		0-130-1008	
Sample Location	S2A-SS2		S2A-SS3		S2B-SS1		S2B-SS2		S2B-SS3	
Sublocation										
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277								
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282								
Trichloroethene	1.58	0.375	39.7	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethene	332	0.473	5760	10.2	21.3	0.473	18.0	0.473	26.6	0.473

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1003		0-130-1041		0-130-1042		0-130-1043		0-130-1047	
Sample Location	S2A-SS4		DEC-SS3		DEC-SS4		DEC-SS5		DEC-SS1	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Vinyl Chloride	U	0.178								
1,1-Dichloroethene	U	0.277	U	0.277	0.334	0.277	U	0.277	U	0.277
trans-1,2-Dichloroethene	U	0.277								
1,1-Dichloroethane	U	0.282								
cis-1,2-Dichloroethene	U	0.277								
1,2-Dichloroethane	U	0.282								
Trichloroethylene	4.88	0.375	U	0.375	U	0.375	U	0.375	U	0.375
Tetrachloroethylene	998	10.2	2.29	0.473	1.13	0.473	U	0.473	48.6	0.473

Table 1.1 Result of the Analysis for VOC(µg/m³) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048	Sample Location	0-130-1051	Sublocation	0-130-1052	Sample Location	0-130-1053	Sublocation	CRPDC-SS2
Analyte	Results µg/m ³	RL µg/m ³							
Vinyl Chloride	U	0.178	U	3.83	U	3.83	U	3.83	
1,1-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95	
trans-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95	
1,1-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07	
cis-1,2-Dichloroethene	U	0.277	U	5.95	U	5.95	U	5.95	
1,2-Dichloroethane	U	0.282	U	6.07	U	6.07	U	6.07	
Trichloroethene	1.66	0.375	57.1	8.06	156	8.06	94.6	8.06	
Tetrachloroethene	187	0.473	249000	763	692000	1530	104000	763	

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1012		0-130-1013		0-130-1018		0-130-1019	
Sample Location	3/6/2012		EQP-SS1		EQP-SS2		EQP-SS3		EQP-SS4	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	U	0.345	1.67	0.345	1.73	0.345	1.90	0.345	2.46	0.345
Chloromethane	U	0.144	0.300	0.144	0.238	0.144	0.279	0.144	0.279	0.144
Dichlorotetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	U	0.552	6.17	0.552	11.1	0.552	31.9	0.552	16.5	0.552
Trichlorofluoromethane	U	0.392	1.14	0.392	2.61	0.392	1.97	0.392	10.3	0.392
Isopropyl Alcohol	U	2.86	1.87	2.86	2.65	0.572	2.00	0.572	43.6	0.572
1,1-Dichloroethene	U	0.277	U	0.277	U	0.277	U	0.277	0.618	0.277
Methylene Chloride	U	0.242	0.660	0.242	2.10	0.242	0.911	0.242	U	0.242
Trichlorotrifluoroethane	U	0.535	0.582	0.535	U	0.535	0.541	0.535	U	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	1.00	0.277	0.290	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	U	0.206	2.40	0.206	4.44	0.206	4.12	0.206	2.09	0.206
cis-1,2-Dichloroethene	U	0.277	0.300	0.277	U	0.277	0.390	0.277	17.8	0.277
Ethyl Acetate	U	0.251	1.55	0.251	1.89	0.251	1.91	0.251	1.27	0.251
Hexane	U	0.246	0.324	0.246	0.770	0.246	1.50	0.246	0.763	0.246
Chloroform	U	0.341	2.18	0.341	0.711	0.341	8.69	0.341	U	0.341
Tetrahydrofuran	U	0.206	0.333	0.206	0.506	0.206	U	0.206	0.588	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	U	0.381	1.07	0.381
Benzene	U	0.223	0.297	0.223	U	0.223	0.607	0.223	U	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240								
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	105	0.375	0.480	0.375	0.453	0.375	9.13	0.375
Heptane	U	0.286	U	0.286	U	0.286	0.346	0.286	U	0.286
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	U	0.286	1.38	0.286	0.335	0.286	2.23	0.286	3.24	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	U	0.263	3.23	0.263	3.22	0.263	4.04	0.263	1.80	0.263
2-Hexanone	U	0.286	U	0.286	0.328	0.286	0.329	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	U	0.473	7340	10.2	2170	10.2	1790	10.2	2600	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	0.461	0.303	U	0.303
m&p-Xylene	U	0.303	U	0.303	0.528	0.303	1.19	0.303	U	0.303
Bromoform	U	0.721								
Styrene	U	0.297								
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	U	0.303	U	0.303	0.556	0.303	1.23	0.303	U	0.303
p-Ethyltoluene	U	0.343								
1,3,5-Trimethylbenzene	U	0.343								
1,2,4-Trimethylbenzene	U	0.343	U	0.343	0.437	0.343	0.899	0.343	U	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419	U	0.419	U	0.419	0.488	0.419	U	0.419
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020		0-130-1021		0-130-1022		0-130-1033		0-130-1037	
Sample Location	EQP-SS5		EQP-SS6		EQP-SS7		EQP-SS8		EQP-SS9	
Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$								
Propylene	U	0.120								
Dichlorodifluoromethane	2.37	0.345	1.82	0.345	1.72	0.345	1.09	0.345	2.01	0.345
Chloromethane	0.235	0.144	0.145	0.144	0.518	0.144	U	0.144	1.37	0.144
Dichlortetrafluoroethane	U	0.488								
Vinyl Chloride	U	0.178								
1,3-Butadiene	U	0.154								
Bromomethane	U	0.271								
Chloroethane	U	0.184								
Acetone	20.1	0.552	8.63	0.552	20.1	0.552	11.7	0.552	14400	2380
Trichlorofluoromethane	7.97	0.392	3.11	0.392	1.35	0.392	1.15	0.392	1.35	0.392
Isopropyl Alcohol	8.48	2.86	U	2.86	U	2.86	U	2.86	U	2.86
1,1-Dichloroethene	U	0.277								
Methylene Chloride	0.653	0.242	U	0.242	U	0.242	5.20	0.242	103	0.242
Trichlorotrifluoroethane	0.601	0.535	0.555	0.535	0.579	0.535	0.562	0.535	0.574	0.535
trans-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	13.5	0.277	U	0.277
1,1-Dichloroethane	U	0.282								
MTBE	U	0.252								
Vinyl Acetate	U	0.246								
2-Butanone	4.33	0.206	2.57	0.206	4.23	0.206	2.78	0.206	32.4	0.206
cis-1,2-Dichloroethene	U	0.277	U	0.277	U	0.277	375	5.95	U	0.277
Ethyl Acetate	2.26	0.251	1.83	0.251	1.76	0.251	1.97	0.251	U	0.251
Hexane	1.21	0.246	1.31	0.246	0.905	0.246	1.37	0.246	41.8	0.246
Chloroform	0.447	0.341	0.508	0.341	0.780	0.341	19.4	0.341	1.63	0.341
Tetrahydrofuran	0.566	0.206	1.37	0.206	0.743	0.206	0.909	0.206	49.6	0.206
1,2-Dichloroethane	U	0.282								
1,1,1-Trichloroethane	U	0.381	U	0.381	U	0.381	0.638	0.381	U	0.381
Benzene	0.379	0.223	U	0.223	U	0.223	3.32	0.223	1.25	0.223
Carbon Tetrachloride	U	0.439								
Cyclohexane	U	0.240	U	0.240	U	0.240	U	0.240	1.12	0.240
1,2-Dichloropropane	U	0.322								
1,4-Dioxane	U	0.251								
Trichloroethene	U	0.375	0.843	0.375	9.41	0.375	3370	8.06	0.654	0.375
Heptane	U	0.286								
cis-1,3-Dichloropropene	U	0.317								
Methyl Isobutyl Ketone	0.721	0.286	1.06	0.286	2.08	0.286	5.27	0.286	21.6	0.286
trans-1,3-Dichloropropene	U	0.317								
1,1,2-Trichloroethane	U	0.381								
Toluene	4.93	0.263	2.42	0.263	2.33	0.263	3.26	0.263	858	5.65
2-Hexanone	0.546	0.286	U	0.286	0.319	0.286	U	0.286	U	0.286
Dibromochloromethane	U	0.594								
1,2-Dibromoethane	U	0.536								
Tetrachloroethene	748	10.2	5710	10.2	3650	10.2	756000	2030	561	10.2
Chlorobenzene	U	0.321								
Ethylbenzene	U	0.303	U	0.303	U	0.303	U	0.303	3.90	0.303
m&p-Xylene	0.896	0.303	0.443	0.303	U	0.303	0.504	0.303	16.6	0.303
Bromoform	U	0.721								
Styrene	U	0.297	0.389	0.297	U	0.297	U	0.297	0.526	0.297
1,1,2,2-Tetrachloroethane	U	0.479								
o-Xylene	0.581	0.303	0.376	0.303	U	0.303	U	0.303	9.89	0.303
p-Ethyltoluene	U	0.343	U	0.343	U	0.343	U	0.343	61.8	0.343
1,3,5-Trimethylbenzene	U	0.343	U	0.343	U	0.343	U	0.343	47.7	0.343
1,2,4-Trimethylbenzene	0.486	0.343	U	0.343	U	0.343	0.598	0.343	130	0.343
1,3-Dichlorobenzene	U	0.419								
1,4-Dichlorobenzene	U	0.419								
1,2-Dichlorobenzene	U	0.419								

Table 1.1 Result of the Analysis for VOC($\mu\text{g}/\text{m}^3$) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number 0-130-1039
Sample Location EQP-SS10
Sublocation

Analyte	Results $\mu\text{g}/\text{m}^3$	RL $\mu\text{g}/\text{m}^3$
Propylene	U	0.120
Dichlorodifluoromethane	1.77	0.345
Chloromethane	1.39	0.144
Dichlorotetrafluoroethane	U	0.488
Vinyl Chloride	U	0.178
1,3-Butadiene	U	0.154
Bromomethane	U	0.271
Chloroethane	U	0.184
Acetone	1100	11.9
Trichlorofluoromethane	1.17	0.392
Isopropyl Alcohol	14.6	2.86
1,1-Dichloroethene	U	0.277
Methylene Chloride	16.9	0.242
Trichlorotrifluoroethane	0.606	0.535
trans-1,2-Dichloroethene	U	0.277
1,1-Dichloroethane	U	0.282
MTBE	U	0.252
Vinyl Acetate	U	0.246
2-Butanone	46.0	0.206
cis-1,2-Dichloroethene	U	0.277
Ethyl Acetate	18.7	0.251
Hexane	31.9	0.246
Chloroform	8.78	0.341
Tetrahydrofuran	5.59	0.206
1,2-Dichloroethane	1.04	0.282
1,1,1-Trichloroethane	U	0.381
Benzene	15.0	0.223
Carbon Tetrachloride	0.924	0.439
Cyclohexane	6.58	0.240
1,2-Dichloropropane	1.06	0.322
1,4-Dioxane	U	0.251
Trichloroethene	U	0.375
Heptane	17.7	0.286
cis-1,3-Dichloropropene	U	0.317
Methyl Isobutyl Ketone	U	0.286
trans-1,3-Dichloropropene	U	0.317
1,1,2-Trichloroethane	U	0.381
Toluene	131000	1130
2-Hexanone	U	0.286
Dibromochloromethane	U	0.594
1,2-Dibromoethane	U	0.536
Tetrachloroethene	33.4	0.473
Chlorobenzene	U	0.321
Ethylbenzene	54.2	0.303
m&p-Xylene	133	0.303
Bromoform	U	0.721
Styrene	2.51	0.297
1,1,2,2-Tetrachloroethane	U	0.479
o-Xylene	29.9	0.303
p-Ethyltoluene	12.0	0.343
1,3,5-Trimethylbenzene	8.79	0.343
1,2,4-Trimethylbenzene	27.8	0.343
1,3-Dichlorobenzene	U	0.419
1,4-Dichlorobenzene	1.55	0.419
1,2-Dichlorobenzene	U	0.419

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1057	
Sample Location	3/5/2012		Trip Blank	
Sublocation	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Propylene	U	0.0698	U	0.0698
Dichlorodifluoromethane	U	0.0698	U	0.0698
Chloromethane	U	0.0698	U	0.0698
Dichlorotetrafluoroethane	U	0.0698	U	0.0698
Vinyl Chloride	U	0.0698	U	0.0698
1,3-Butadiene	U	0.0698	U	0.0698
Bromomethane	U	0.0698	U	0.0698
Chloroethane	U	0.0698	U	0.0698
Acetone	U	0.233	0.364	0.233
Trichlorofluoromethane	U	0.0698	U	0.0698
Isopropyl Alcohol	U	1.165	U	1.165
1,1-Dichloroethene	U	0.0698	U	0.0698
Methylene Chloride	U	0.0698	U	0.0698
Trichlorotrifluoroethane	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698
MTBE	U	0.0698	U	0.0698
Vinyl Acetate	U	0.0698	U	0.0698
2-Butanone	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698
Ethyl Acetate	U	0.0698	U	0.0698
Hexane	U	0.0698	U	0.0698
Chloroform	U	0.0698	U	0.0698
Tetrahydrofuran	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698
1,1,1-Trichloroethane	U	0.0698	U	0.0698
Benzene	U	0.0698	U	0.0698
Carbon Tetrachloride	U	0.0698	U	0.0698
Cyclohexane	U	0.0698	U	0.0698
1,2-Dichloropropane	U	0.0698	U	0.0698
1,4-Dioxane	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698
Heptane	U	0.0698	U	0.0698
cis-1,3-Dichloropropene	U	0.0698	U	0.0698
Methyl Isobutyl Ketone	U	0.0698	U	0.0698
trans-1,3-Dichloropropene	U	0.0698	U	0.0698
1,1,2-Trichloroethane	U	0.0698	U	0.0698
Toluene	U	0.0698	U	0.0698
2-Hexanone	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698	U	0.0698
1,2-Dibromoethane	U	0.0698	U	0.0698
Tetrachloroethene	U	0.0698	U	0.0698
Chlorobenzene	U	0.0698	U	0.0698
Ethylbenzene	U	0.0698	U	0.0698
m&p-Xylene	U	0.0698	U	0.0698
Bromoform	U	0.0698	U	0.0698
Styrene	U	0.0698	U	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698	U	0.0698
o-Xylene	U	0.0698	U	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698
1,3-Dichlorobenzene	U	0.0698	U	0.0698
1,4-Dichlorobenzene	U	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1004		0-130-1005		0-130-1044		0-130-1045	
Sample Location	S2A-IA1		S2A-IA2		DEC-IA1		DEC-IA2	
Sublocation								
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	0.0775	0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	0.388	0.0698	U	0.0698	U	0.0698	U	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1046	Sample Location	0-130-1049	Sublocation	0-130-1050		0-130-1054		0-130-1055	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	0.933	0.0698	0.614	0.0698	U	0.0698	U	0.0698
Trichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	U	0.0698	U	0.0698	0.998	0.0698	0.715	0.0698	1.18	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

	0-130-1001		0-130-1002		0-130-1006		0-130-1007		0-130-1008	
Sample Number	S2A-SS2		S2A-SS3		S2B-SS1		S2B-SS2		S2B-SS3	
Analyte	Results ppbv	RL ppbv								
Vinyl Chloride	U	0.0698								
1,1-Dichloroethene	U	0.0698								
trans-1,2-Dichloroethene	U	0.0698								
1,1-Dichloroethane	U	0.0698								
cis-1,2-Dichloroethene	U	0.0698								
1,2-Dichloroethane	U	0.0698								
Trichloroethene	0.294	0.0698	7.38	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	48.9	0.0698	849	1.50	3.14	0.0698	2.65	0.0698	3.92	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1003	Sample Location	0-130-1041	Sublocation	0-130-1042		0-130-1043		0-130-1047	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethene	U	0.0698	U	0.0698	0.0842	0.0698	U	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
1,2-Dichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Trichloroethene	0.907	0.0698	U	0.0698	U	0.0698	U	0.0698	U	0.0698
Tetrachloroethene	147	1.50	0.337	0.0698	0.167	0.0698	U	0.0698	7.16	0.0698

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1048	Sample Location	0-130-1051	Sublocation	0-130-1052		0-130-1053	
Analyte	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv	Results ppbv	RL ppbv
Vinyl Chloride	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
trans-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,1-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
cis-1,2-Dichloroethene	U	0.0698	U	1.50	U	1.50	U	1.50
1,2-Dichloroethane	U	0.0698	U	1.50	U	1.50	U	1.50
Trichloroethene	0.309	0.0698	10.6	1.50	29.0	1.50	17.6	1.50
Tetrachloroethene	27.5	0.0698	36700	113	102000	225	15400	113

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	Method Blank		0-130-1012		0-130-1013		0-130-1018		0-130-1019	
Sample Location	3/6/2012		EQP-SS1		EQP-SS2		EQP-SS3		EQP-SS4	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	U	0.0698	0.338	0.0698	0.351	0.0698	0.384	0.0698	0.498	0.0698
Chloromethane	U	0.0698	0.145	0.0698	0.115	0.0698	0.135	0.0698	0.135	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	U	0.233	2.60	0.233	4.65	0.233	13.40	0.233	6.94	0.233
Trichlorofluoromethane	U	0.0698	0.204	0.0698	0.464	0.0698	0.351	0.0698	1.830	0.0698
Isopropyl Alcohol	U	1.16	U	1.16	U	1.16	U	1.16	17.800	1.16
1,1-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.156	0.0698
Methylene Chloride	U	0.0698	0.190	0.0698	0.603	0.0698	0.262	0.0698	U	0.0698
Trichlorotrifluoroethane	U	0.0698	0.0759	0.0698	U	0.0698	0.0706	0.0698	U	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	0.253	0.0698	0.0732	0.0698
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	U	0.0698	0.814	0.0698	1.510	0.0698	1.400	0.0698	0.707	0.0698
cis-1,2-Dichloroethene	U	0.0698	0.0757	0.0698	U	0.0698	0.0984	0.0698	4.5000	0.0698
Ethyl Acetate	U	0.0698	0.430	0.0698	0.524	0.0698	0.529	0.0698	0.353	0.0698
Hexane	U	0.0698	0.0919	0.0698	0.2190	0.0698	0.4240	0.0698	0.2160	0.0698
Chloroform	U	0.0698	0.446	0.0698	0.146	0.0698	1.780	0.0698	U	0.0698
Tetrahydrofuran	U	0.0698	0.113	0.0698	0.172	0.0698	U	0.0698	0.199	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.197	0.0698
Benzene	U	0.0698	0.0930	0.0698	U	0.0698	0.1900	0.0698	U	0.0698
Carbon Tetrachloride	U	0.0698								
Cyclohexane	U	0.0698								
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698	19.5	0.0698	0.1	0.0698	0.1	0.0698	1.7	0.0698
Heptane	U	0.0698	U	0.0698	U	0.0698	0.0845	0.0698	U	0.0698
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	U	0.0698	0.336	0.0698	0.082	0.0698	0.543	0.0698	0.791	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	U	0.0698	0.858	0.0698	0.854	0.0698	1.070	0.0698	0.478	0.0698
2-Hexanone	U	0.0698	U	0.0698	0.08	0.0698	0.0804	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	U	0.0698	1080	1.50	319	1.50	265	1.50	383	1.50
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	U	0.0698	0.106	0.0698	U	0.0698
m&p-Xylene	U	0.0698	U	0.0698	0.121	0.0698	0.274	0.0698	U	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698								
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	U	0.0698	U	0.0698	0.128	0.0698	0.283	0.0698	U	0.0698
p-Ethyltoluene	U	0.0698								
1,3,5-Trimethylbenzene	U	0.0698								
1,2,4-Trimethylbenzene	U	0.0698	U	0.0698	0.089	0.0698	0.183	0.0698	U	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698	U	0.0698	U	0.0698	0.0811	0.0698	U	0.0698
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1020		0-130-1021		0-130-1022		0-130-1033		0-130-1037	
Sample Location	EQP-SS5		EQP-SS6		EQP-SS7		EQP-SS8		EQP-SS9	
Analyte	Results ppbv	RL ppbv								
Propylene	U	0.0698								
Dichlorodifluoromethane	0.479	0.0698	0.369	0.0698	0.348	0.0698	0.221	0.0698	0.406	0.0698
Chloromethane	0.114	0.0698	0.0700	0.0698	0.251	0.0698	U	0.0698	0.661	0.0698
Dichlorotetrafluoroethane	U	0.0698								
Vinyl Chloride	U	0.0698								
1,3-Butadiene	U	0.0698								
Bromomethane	U	0.0698								
Chloroethane	U	0.0698								
Acetone	8.46	0.233	3.63	0.233	8.44	0.233	4.92	0.233	6080	1000
Trichlorofluoromethane	1.42	0.0698	0.554	0.0698	0.240	0.0698	0.205	0.0698	0.240	0.0698
Isopropyl Alcohol	3.45	1.16	U	1.16	U	1.16	U	1.16	U	1.16
1,1-Dichloroethene	U	0.0698								
Methylene Chloride	0.188	0.0698	U	0.0698	U	0.0698	1.50	0.0698	29.6	0.0698
Trichlorotrifluoroethane	0.0784	0.0698	0.0725	0.0698	0.0756	0.0698	0.0734	0.0698	0.0749	0.0698
trans-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	3.41	0.0698	U	0.0698
1,1-Dichloroethane	U	0.0698								
MTBE	U	0.0698								
Vinyl Acetate	U	0.0698								
2-Butanone	1.47	0.0698	0.873	0.0698	1.43	0.0698	0.941	0.0698	11.0	0.0698
cis-1,2-Dichloroethene	U	0.0698	U	0.0698	U	0.0698	94.5	1.50	U	0.0698
Ethyl Acetate	0.628	0.0698	0.508	0.0698	0.487	0.0698	0.546	0.0698	U	0.0698
Hexane	0.343	0.0698	0.371	0.0698	0.257	0.0698	0.388	0.0698	11.9	0.0698
Chloroform	0.0916	0.0698	0.104	0.0698	0.160	0.0698	3.97	0.0698	0.334	0.0698
Tetrahydrofuran	0.192	0.0698	0.464	0.0698	0.252	0.0698	0.308	0.0698	16.8	0.0698
1,2-Dichloroethane	U	0.0698								
1,1,1-Trichloroethane	U	0.0698	U	0.0698	U	0.0698	0.117	0.0698	U	0.0698
Benzene	0.119	0.0698	U	0.0698	U	0.0698	1.04	0.0698	0.392	0.0698
Carbon Tetrachloride	U	0.0698								
Cyclohexane	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.324	0.0698
1,2-Dichloropropane	U	0.0698								
1,4-Dioxane	U	0.0698								
Trichloroethene	U	0.0698	0.157	0.0698	1.75	0.0698	627	1.50	0.122	0.0698
Heptane	U	0.0698								
cis-1,3-Dichloropropene	U	0.0698								
Methyl Isobutyl Ketone	0.176	0.0698	0.259	0.0698	0.509	0.0698	1.29	0.0698	5.27	0.0698
trans-1,3-Dichloropropene	U	0.0698								
1,1,2-Trichloroethane	U	0.0698								
Toluene	1.31	0.0698	0.643	0.0698	0.617	0.0698	0.865	0.0698	228	1.50
2-Hexanone	0.133	0.0698	U	0.0698	0.0778	0.0698	U	0.0698	U	0.0698
Dibromochloromethane	U	0.0698								
1,2-Dibromoethane	U	0.0698								
Tetrachloroethene	110	1.50	841	1.50	539	1.50	111000	300	82.8	1.50
Chlorobenzene	U	0.0698								
Ethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	0.897	0.0698
m&p-Xylene	0.206	0.0698	0.102	0.0698	U	0.0698	0.116	0.0698	3.82	0.0698
Bromoform	U	0.0698								
Styrene	U	0.0698	0.0912	0.0698	U	0.0698	U	0.0698	0.123	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698								
o-Xylene	0.134	0.0698	0.0867	0.0698	U	0.0698	U	0.0698	2.28	0.0698
p-Ethyltoluene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	12.6	0.0698
1,3,5-Trimethylbenzene	U	0.0698	U	0.0698	U	0.0698	U	0.0698	9.70	0.0698
1,2,4-Trimethylbenzene	0.0988	0.0698	U	0.0698	U	0.0698	0.122	0.0698	26.5	0.0698
1,3-Dichlorobenzene	U	0.0698								
1,4-Dichlorobenzene	U	0.0698								
1,2-Dichlorobenzene	U	0.0698								

Table 1.1 Result of the Analysis for VOC (ppbv) in Air
WA# 0-130, Cabo Rojo

Method: SERAS SOP#1814

Sample Number	0-130-1039	
Sample Location	EQP-SS10	
Sublocation		
Analyte	Results ppbv	RL ppbv
Propylene	U	0.0698
Dichlorodifluoromethane	0.358	0.0698
Chloromethane	0.673	0.0698
Dichlorotetrafluoroethane	U	0.0698
Vinyl Chloride	U	0.0698
1,3-Butadiene	U	0.0698
Bromomethane	U	0.0698
Chloroethane	U	0.0698
Acetone	461	5.00
Trichlorofluoromethane	0.208	0.0698
Isopropyl Alcohol	5.94	1.16
1,1-Dichloroethene	U	0.0698
Methylene Chloride	4.85	0.0698
Trichlorotrifluoroethane	0.0791	0.0698
trans-1,2-Dichloroethene	U	0.0698
1,1-Dichloroethane	U	0.0698
MTBE	U	0.0698
Vinyl Acetate	U	0.0698
2-Butanone	15.6	0.0698
cis-1,2-Dichloroethene	U	0.0698
Ethyl Acetate	5.19	0.0698
Hexane	9.05	0.0698
Chloroform	1.80	0.0698
Tetrahydrofuran	1.90	0.0698
1,2-Dichloroethane	0.257	0.0698
1,1,1-Trichloroethane	U	0.0698
Benzene	4.69	0.0698
Carbon Tetrachloride	0.147	0.0698
Cyclohexane	1.91	0.0698
1,2-Dichloropropane	0.229	0.0698
1,4-Dioxane	U	0.0698
Trichloroethene	U	0.0698
Heptane	4.31	0.0698
cis-1,3-Dichloropropene	U	0.0698
Methyl Isobutyl Ketone	U	0.0698
trans-1,3-Dichloropropene	U	0.0698
1,1,2-Trichloroethane	U	0.0698
Toluene	34700	300
2-Hexanone	U	0.0698
Dibromochloromethane	U	0.0698
1,2-Dibromoethane	U	0.0698
Tetrachloroethene	4.92	0.0698
Chlorobenzene	U	0.0698
Ethylbenzene	12.5	0.0698
m&p-Xylene	30.6	0.0698
Bromoform	U	0.0698
Styrene	0.589	0.0698
1,1,2,2-Tetrachloroethane	U	0.0698
o-Xylene	6.89	0.0698
p-Ethyltoluene	2.44	0.0698
1,3,5-Trimethylbenzene	1.79	0.0698
1,2,4-Trimethylbenzene	5.65	0.0698
1,3-Dichlorobenzene	U	0.0698
1,4-Dichlorobenzene	0.257	0.0698
1,2-Dichlorobenzene	U	0.0698

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

WO # R 203001

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0009

Cooler #: 4

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
24	0-130-1004	S2A-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	226	14028	-30	3/1/2012	6:28:00 AM
25	0-130-1005	S2A-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	128	13933	-30	3/1/2012	6:35:00 AM
26	0-130-1044	DEC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	97	14010	-30	3/1/2012	10:36:00 AM
27	0-130-1045	DEC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	129	13794	-30	3/1/2012	10:44:00 AM
28	0-130-1046	DEC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	149	13958	-30	3/1/2012	11:00:00 AM
29	0-130-1049	DEC-IA3	TO-15 (Chlorinated)	Air	1	SUMMA	215	14023	-30	3/1/2012	10:53:00 AM
30	0-130-1050	CRPDC-IA1	TO-15 (Chlorinated)	Air	1	SUMMA	10	13762	-30	3/1/2012	11:20:00 AM
31	0-130-1054	CRPDC-IA2	TO-15 (Chlorinated)	Air	1	SUMMA	47	14000	-30	3/1/2012	11:23:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.	SAMPLES TRANSFERRED FROM
	CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
Au/Analysis	<i>M. Cartwright</i>	3/2/12	FED-EX	3/2/12							
—	<i>FEDEX</i>	—	<i>M. Cartwright</i>	3/5/12	11:30						
Au/Analysis	<i>M. Cartwright</i>	3/5/12	<i>T. Ross</i>	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0010

Cooler #: 5

Lab: SERAS

WOT# R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
32	0-130-1012	EQP-SS1	TO-15 (Full List)	Soil Gas	1	SUMMA	63	13991	-30	3/1/2012	7:40:00 AM
33	0-130-1013	EQP-SS2	TO-15 (Full List)	Soil Gas	1	SUMMA	228	13789	-30	3/1/2012	7:38:00 AM
34	0-130-1018	EQP-SS3	TO-15 (Full List)	Soil Gas	1	SUMMA	3	14015	-30	3/1/2012	7:36:00 AM
35	0-130-1019	EQP-SS4	TO-15 (Full List)	Soil Gas	1	SUMMA	220	13998	-30	3/1/2012	7:30:00 AM
36	0-130-1020	EQP-SS5	TO-15 (Full List)	Soil Gas	1	SUMMA	14073	13778	-30	3/1/2012	7:28:00 AM
37	0-130-1021	EQP-SS6	TO-15 (Full List)	Soil Gas	1	SUMMA	182	13988	-30	3/1/2012	7:32:00 AM
38	0-130-1022	EQP-SS7	TO-15 (Full List)	Soil Gas	1	SUMMA	266	13990	-30	3/1/2012	7:34:00 AM
39	0-130-1055	CRPDC-AMB1	TO-15 (Chlorinated)	Air	1	SUMMA	74	14029	-30	3/1/2012	11:24:00 AM

Special Instructions: Analyze per PWA. Sample 0-130-1055 gets Chlorinated list only, the remaining samples get Full TO-15 list.

*Sub-slab sample previously collected at Location EQP-SS1 (sample 0-130-1012) indicated concentrations of 4,970 ppbv for PCE, 83 ppbv for TCE and 50 ppbv for DCE. Similar concentrations may be detected at this location and in other soil gas samples collected at locations EQP-SS2 through 7.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
AU/Analysis	<i>M. Cartwright</i>	3/1/12	FED-EX	3/2/12							
FED-EX				<i>M. Cartwright</i>	3/5/12 11:30						
AU/Analysis	<i>M. Cartwright</i>	3/5/12	<i>R. S.</i>	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

Airbill No: 899458692192

CHAIN OF CUSTODY RECORD

No: 0-130-3/2/12-0011

Cooler #: 6

Lab: SERAS

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

9458692192
W0ff R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
40	0-130-1001	S2A-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14066	13964	-30	3/1/2012	6:28:00 AM
41	0-130-1002	S2A-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	41	13923	-30	3/1/2012	6:29:00 AM
42	0-130-1006	S2B-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	143	13776	-30	3/1/2012	6:42:00 AM
43	0-130-1007	S2B-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	195	14042	-30	3/1/2012	6:43:00 AM
44	0-130-1008	S2B-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	227	14043	-30	3/1/2012	6:44:00 AM
45	0-130-1033	EQP-SS8	TO-15 (Full List)	Soil Gas	1	SUMMA	144	14036	-30	3/1/2012	9:30:00 AM
46	0-130-1037	EQP-SS9	TO-15 (Full List)	Soil Gas	1	SUMMA	222	13906	-30	3/1/2012	9:32:00 AM
47	0-130-1039	EQP-SS10	TO-15 (Full List)	Soil Gas	1	SUMMA	236	13944	-30	3/1/2012	10:18:00 AM

Special Instructions: Analyze per PWA. Samples 0-130-1001, 1002, 1006, 1007 and 1008 get Chlorinated VOC list. Samples 0-130-1033, 1037 and 1039 get Full TO-15 list

SAMPLES TRANSFERRED FROM

*Sub-slab sample previously collected near Location EQP-SS8 (sample 0-130-1033) indicated concentrations of 980 ppbv for PCE, 190 ppbv for TCE and 1,700 ppbv for DCE. Similar concentrations may be detected at this location and other soil gas samples collected at location EQP.

CHAIN OF CUSTODY #

*Soil gas samples previously collected near Location S2A and S2B indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at locations S2A and S2B.

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All /Analysis	<u>Marilyn</u>	3/2/12	FED-EX	3/2/12	-	←	FED EX	—	<u>JK</u>	3/5/12	11:30
All /Analysis	<u>JK</u>	3/5/12	<u>Parikh</u>	3/5/12	1630						

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458692192

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0012

Cooler #: 7

Lab: SERAS

WOT# R203001

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
48	0-130-1003	S2A-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	14074	14011	-30	3/1/2012	6:30:00 AM
49	0-130-1041	DEC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	70	13946	-30	3/1/2012	10:40:00 AM
50	0-130-1042	DEC-SS4	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	76	13911	-30	3/1/2012	10:42:00 AM
51	0-130-1043	DEC-SS5	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	166	13912	-30	3/1/2012	10:36:00 AM
52	0-130-1047	DEC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	19	13795	-30	3/1/2012	10:50:00 AM
53	0-130-1048	DEC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	24	14008	-30	3/1/2012	10:52:00 AM
54	0-130-1051	CRPDC-SS3	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	160	13929	-30	3/1/2012	11:20:00 AM
55	0-130-1052	CRPDC-SS1	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	112	14047	-30	3/1/2012	11:21:00 AM

Special Instructions: Analyze per PWA. Chlorinated VOC list.

*Soil gas samples previously collected near Location S2A indicated concentrations ranging from 20 to 2,500 ppbv for PCE and 91 to 120 ppbv for TCE. Similar concentrations may be detected in soil gas samples collected at location S2A.

*Soil gas samples previously collected at Locations DEC-SS1 and SS-5 (Samples 0-130-1047 and 1043) were non-detect for PCE, TCE and DEC however soil gas samples collected around the DEC building indicated concentrations of 430 ppbv for PCE and TCE, 850 to 50,200 ppbv for DCE. Similar concentrations may be detected in soil gas samples collected at location DEC.

*Soil gas samples previously collected at Location CRPDC-SS1 (Sample 0-130-1052) indicated concentrations of 64,700 ppbv for PCE and 58 ppbv for TCE. Similar concentrations may be detected at this location and in other soil gas samples collected at location CRPDC.

SAMPLES TRANSFERRED FROM

CHAIN OF CUSTODY

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
A4/Analysis	Unlabeled	3/2/12	FED-EX	3/2/12	—	—	FED EX	—	Unlabeled	3/5/12	11:30
All/Analysis	Unlabeled	3/5/12	Bob	3/5/12	1630	—	Unlabeled	3/5/12	Unlabeled	3/5/12	11:30

USEPA

DateShipped: 3/2/2012

CarrierName: FedEx

AirbillNo: 899458602102

CHAIN OF CUSTODY RECORD

Cabo Rojo

Contact Name: Michael Cartwright

Contact Phone: 732-321-4284

No: 0-130-3/2/12-0013

Cooler #: 8

Lab: SERAS

Lab #	Sample #	Location	Analyses	Matrix	Numb Cont	Container	Pump #	OrificeID	Start Pressure	Stop Date	Stop Time
56	0-130-1053	CRPDC-SS2	TO-15 (Chlorinated)	Soil Gas	1	SUMMA	119	13989	-30	3/1/2012	11:22:00 AM
57	0-130-1057	Trip Blank	TO-15 (Full List)	Air	1	SUMMA	219		-30	3/2/2012	12:00:00 PM

Special Instructions: Analyze per PWA. Sample 0-130-1053 analyzed for chlorinated VOC list only. Trip blank gets full TO-15 analysis.

SAMPLES TRANSFERRED FROM

*Soil gas samples previously collected at Location CRPDC-SS2 (Sample 0-130-1053) indicated concentrations of 4,870 ppbv for PCE and 32 ppbv for TCE. Similar concentrations may be detected at this location.

CHAIN OF CUSTODY #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
All / Analysis	Melissa	3/2/12	FED-EX	3/2/12	-	-	FED-EX	3/5/12	John	3/5/12	11:30
All / Analysis	John	3/5/12	John	3/5/12	1630						